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A Review of Neighbourhood Plan Population Design Guidelines

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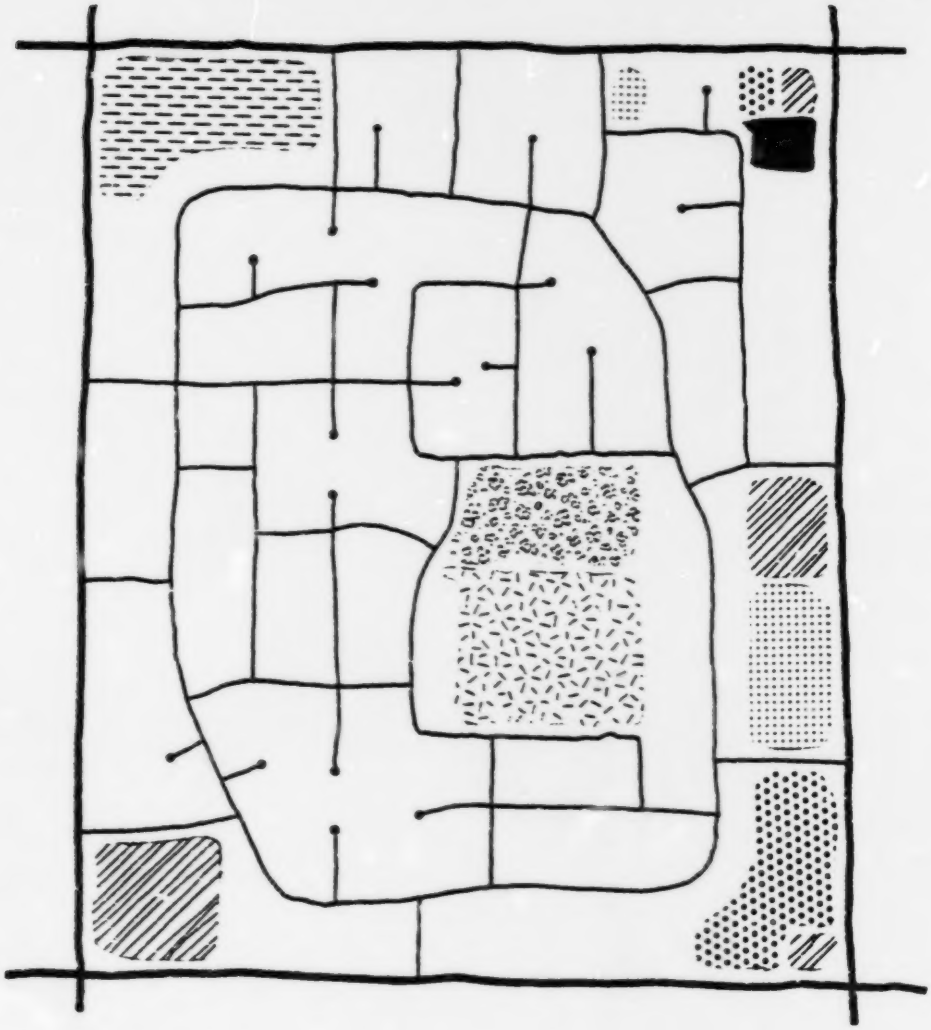
HAMILTON, ONTARIO



Planning and Development Department
Hamilton-Wentworth Region

March 1982

A REVIEW OF
NEIGHBOURHOOD PLAN POPULATION
DESIGN GUIDELINES

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EXECUTIVE SUMMARY

FINDINGS

The findings of this study illustrates that there are differences between the existing design guidelines used in the preparation of neighbourhood plans and the manner in which neighbourhoods are developing. It appears that the existing design guidelines are, in most cases, too high.

CONCLUSIONS

The implication from the findings is that when neighbourhood plans are prepared, the design population for these neighbourhoods appear to be too optimistic, given:

- the declining trend in persons per unit (p.p.u.); and,
- the density of units, (units per hectare), have relatively remained unchanged.

Since the design population of a neighbourhood provides the basis for the provision of services, (i.e. engineering and community services), then the more realistic the design population, the more accurate will be the estimated needs of such services.

RECOMMENDATION

It is recommended that the existing neighbourhood plan average design guidelines be revised as follows:

- that the persons per unit (p.p.u.) for:
  - low density housing, (singles; semis; and attached units), be changed from 3.8 to 3.5;
  - low density apartment be changed from 3.0 to 2.5; and,
  - medium density apartment be changed from 2.4 to 2.1.

- that the units per hectare (u.p.ha.) for:
  - low density housing (singles and semis) remain unchanged at 18.0;
  - low density housing (attached) remain unchanged at 30.0;
  - low density apartment remain unchanged at 60.0; and,
  - medium density apartments remain unchanged at 100.0.
- that the persons per hectare (p.p.ha.) for:
  - low density housing, (singles and semis), be changed from 68.1 to 63.0;
  - attached housing be changed from 112.7 to 105.0;
  - low density apartments be changed from 177.9 to 150.0; and,
  - medium density apartments be changed from 237.2 to 210.0.

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SECTION 1 - PURPOSE, PROBLEM AND STUDY AREA

PURPOSE

The purpose of this study is to review the existing neighbourhood plan population design guidelines which are used to determine the distribution and allocation of land uses in the preparation of neighbourhood plans. The determination of land uses in a neighbourhood plan enables the establishment of a design population in a neighbourhood.

Accordingly, the design guidelines to be reviewed are:

- persons per unit, (p.p.u.);
- unit density for each residential land use, units per hectare (u.p.ha.); and,
- population density for each residential land use, population per hectare (p.p.ha.).

Hence, this study will:

- compare actual and observed guidelines with the existing neighbourhood design guidelines;
- evaluate the validity of the existing neighbourhood plan guidelines; and,
- recommend an appropriate course of action.

This study is divided into three major parts, including:

- a review of the existing persons per unit characteristics in the area and its comparison to the guidelines used in the preparation of neighbourhood plans;
- a review of the unit density, persons per unit (p.p.u. characteristics committed in subdivision and registered plans, with the guidelines presently used in the neighbourhood planning process; and,
- a review of the population density, persons per hectare (p.p.ha.) characteristics committed in subdivision and registered plans with the guidelines presently used in the neighbourhood planning process.

PROBLEM

The neighbourhood planning process utilizes various guidelines to establish a design population as well as the type and location of residential land uses for neighbourhoods in the study area. The design population for a neighbourhood, in particular, provides the basis for the provisions of:

- size and number of schools;
- parks and other community services;
- public rights-of-way allowances (roads, sidewalks, walkways); and,
- engineering services.

Consequently, the more accurate these figures are, the more realistic will be the allocation of these services.

However, in light of:

- changing demographic, social and economic trends and housing market demands; and,
- growing concern with energy and its implications on the pattern of land uses,

the appropriateness of existing guidelines are questionable.

THE STUDY AREA

The study area consists of the entire mountain and, a portion of the City east of the Red Hill Creek, (see map 1). This area is divided into neighbourhoods. The statistical information compiled in this study is carried out on a neighbourhood basis. Accordingly, the study area is characterized by neighbourhoods which fall into three categories:(1)

- fully developed;
- partially developed; or,
- developing neighbourhoods, (see map 1).

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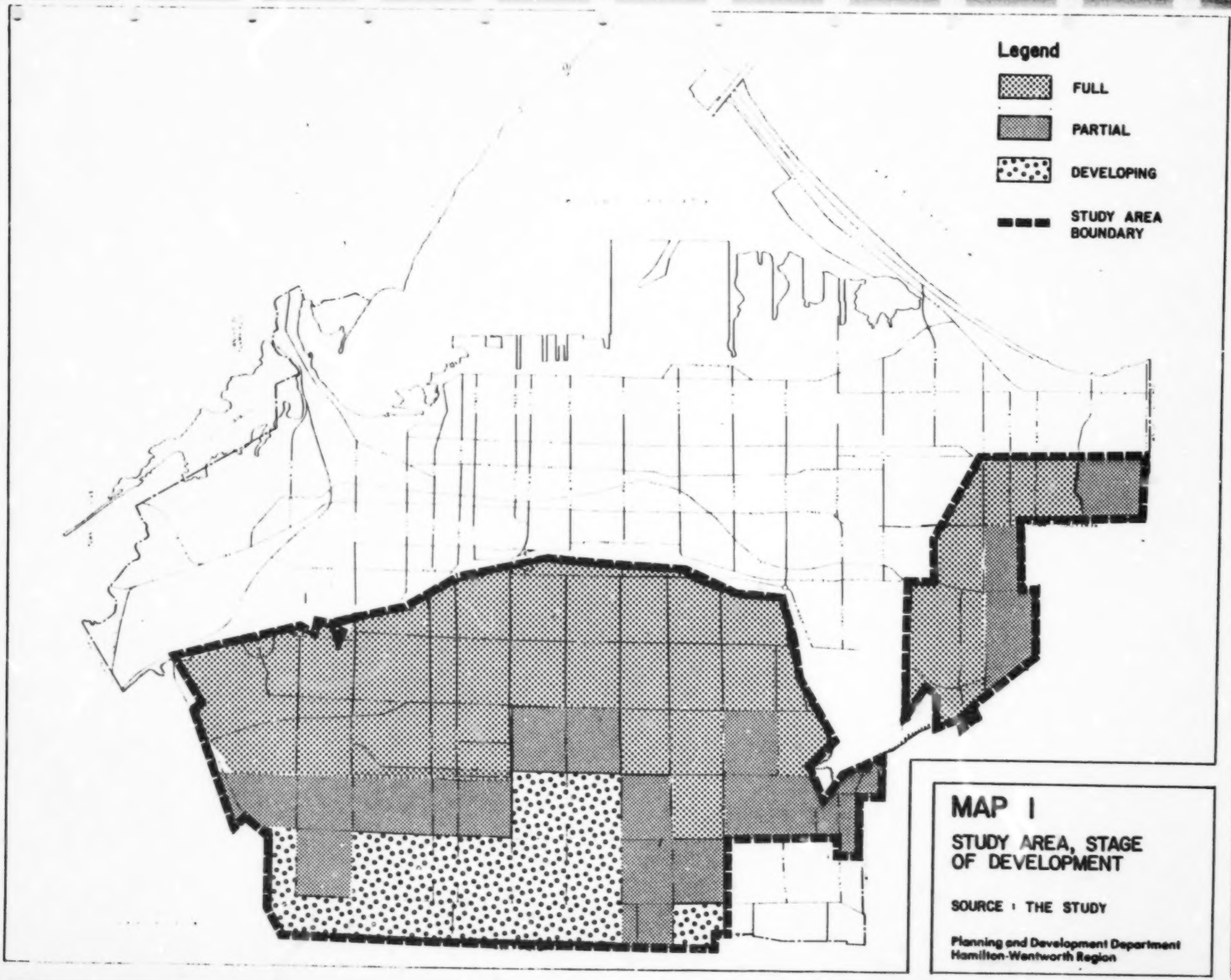
(1)
- Fully developed neighbourhoods are fully matured with no vacant lands.
- Partially developed neighbourhoods are partly vacant.
- Developing neighbourhoods are mostly vacant.



MAP 1

STUDY AREA, STAGE OF DEVELOPMENT

SOURCE : THE STUDY

Planning and Development Department
Hamilton-Wentworth Region

Of the 66 neighbourhoods in the study area:

- 33 are fully developed;
- 18 are partially developed; and,
- 15 are developing.

SECTION 2 - PERSONS PER UNIT

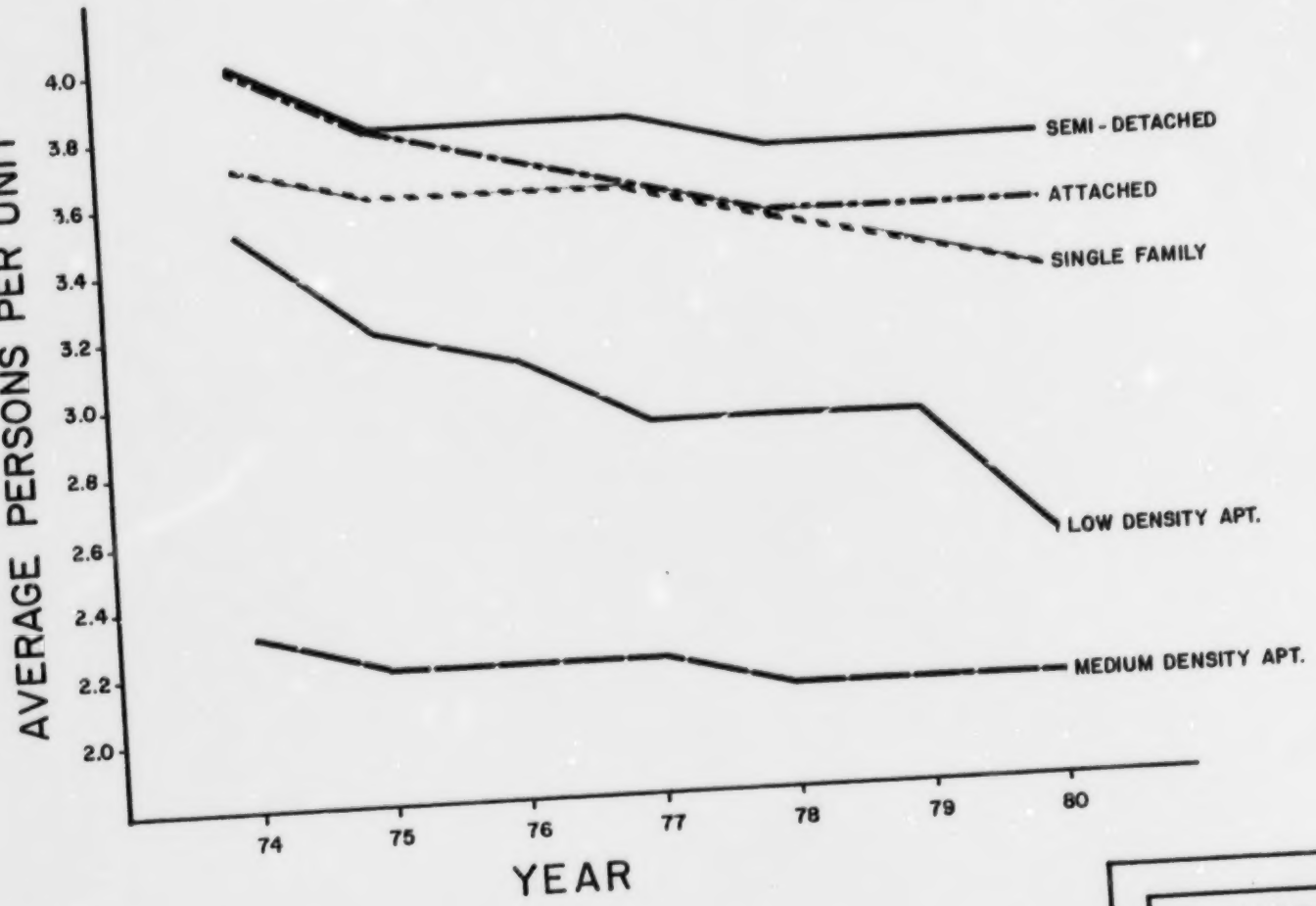
CHARACTERISTICS OF PERSONS PER UNITS

Recently, many municipalities in the Province have experienced a noticeable decline in their persons per dwelling units (p.p.u.). This, in part, is attributed to:

- a lower growth rate in population;
- the aging of the post-war baby boom;
- a decline in family size;
- a decrease in marriage rates and an increase in divorce rates; and,
- the delay in family formation.

The trend for the City of Hamilton, and in particular the study area, appears to be similar to this pattern, (see appendix 1).

During the six-year period from 1974 to 1980, the study area experienced an average decline in p.p.u. in all types of dwelling units, (see figure 1). The largest drop was in the low density apartment type units representing a drop of 1.0 p.p.u., down from 3.5 p.p.u. in 1974 to 2.5 p.p.u. in 1980, (see table 1). When the p.p.u. in each neighbourhood for 1974 and 1980 is reviewed, a decline in most neighbourhoods is clearly evident, including fully developed, partially developed, and developing neighbourhoods, (see figure 2).



SOURCE : 1981 - LAND USE CHARACTERISTICS - HAMILTON - WENTWORTH PLANNING AND DEVELOPMENT DEPARTMENT

FIGURE 1

AVERAGE PERSONS PER UNIT PER HOUSING TYPE

TABLE 1 AVERAGE PERSONS PER UNIT PER TYPE

DWELLING TYPE	1974	1980	Change from 1974-1980
Single Family	3.7	3.3	-0.4
Semi-Detached	3.9	3.7	-0.2
Attached	3.9	3.5	-0.4
Low Density Apartment	3.5	2.5	-1.0
Medium Density Apartment	2.3	2.1	-0.2

Source: Land Use Characteristics 1981 - Hamilton-Wentworth Planning and Development Department.

When the 1980 actual p.p.u. is compared with the p.p.u. design guidelines presently being used in the preparation of neighbourhood plans, a number of differences are observed, (see table 2).

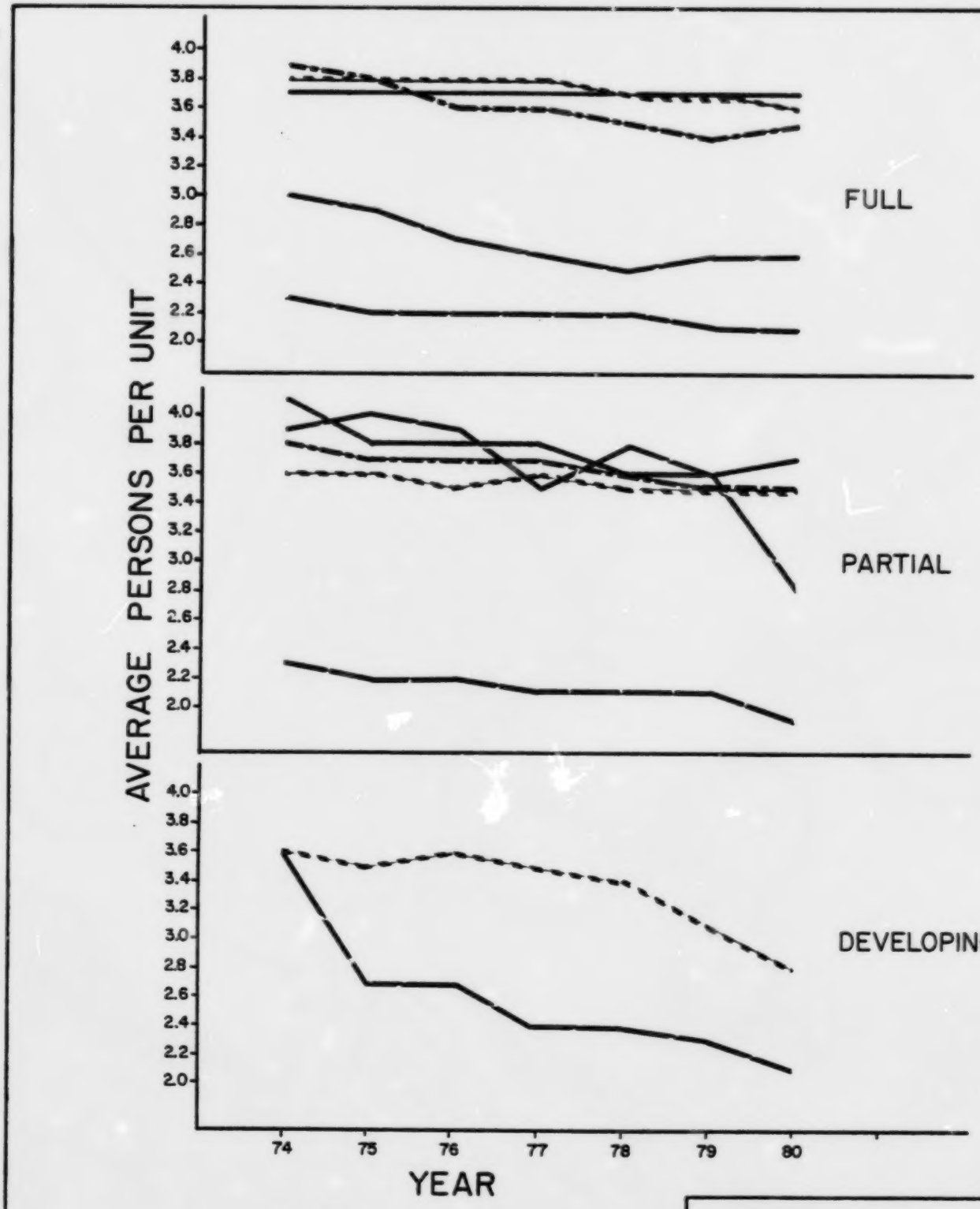


FIGURE 2

AVERAGE PERSONS PER UNIT IN EACH STAGE OF DEVELOPMENT

TABLE 2 EXISTING GUIDELINES AND ACTUAL 1980 PERSONS PER UNIT (P.P.U.)

TYPE OF UNIT	EXISTING DESIGN GUIDELINES	ACTUAL 1980 AVERAGES	DIFFERENCE BETWEEN DESIGN AND ACTUAL
Single Family (2)	3.8	3.3	-0.5
Semi-Detached (2)	3.8	3.7	-0.1
Attached Housing (2)	3.8	3.5	-0.3
Low Density Apartment	3.0	2.5	-0.5
Medium Density Apartment	2.4	2.1	-0.3
TOTAL	16.8	15.1	-1.7

Source: Land Use Characteristics 1981 - Hamilton-Wentworth Planning and Development Department

When these differences are related to the overall design population in a neighbourhood, a number of important facts are revealed. Accordingly, to relate these differences in the p.p.u. to the total population of a neighbourhood, it was necessary to review the total number of units allocated in an approved plan.

It was found that the number of units allocated in neighbourhood plans falls within a certain range. The median range for low density housing, low density apartment and medium density apartment is illustrated in Appendix 2.

---

(2) Single Family Units, Semi-Detached Units, and Attached Housing Units make up the Low Density Housing Category.

The differences between the existing p.p.u. design guidelines and the 1980 actual average p.p.u. in the study area for the low density housing category, low density apartment, and medium density apartments are 0.9, 0.5, and 0.3 p.p.u., respectively, (See Table 2).

When the median range of units for each category is related to these differences, an estimated overallocation from:

- 540 to 990 persons in low density housing;(3)
- 50 to 125 persons in low density apartments;(4) and,
- 75 to 150 persons in the medium density apartments (5)

is observed.

In total, these differences represent a possible overallocation in design population of 665 to 1,265 persons in a neighbourhood.

Expressed in another way, this overallocation represents a contingency of 14.8% to 28.1% to the total design population in an approved neighbourhood plan (see appendix 3)(6). While a contingency in the design population for a neighbourhood may be required, a contingency level this high should not be considered to be reasonable.

In conclusion, since population is the single most important factor which determines the level of community and engineering services, a revision to the existing p.p.u. guidelines used in the preparation of neighbourhood plans to better reflect the 1980 reduced values is required.

---

(3) The number of low density housing in most neighbourhoods (singles, semis and attached) ranges from 600 to 1,100 units, (see appendix 2). This translates to 540 persons (600 X 0.9 p.p.u.) and 990 (1,100 X 0.9 p.p.u.)

(4) The number of low density apartments in most neighbourhoods ranges from 100 to 250 units (see appendix 2). This translates to 50 persons (100 X 0.5 p.p.u.) and 125 (250 X 0.5 p.p.u.).

(5) The number of medium density apartments in most neighbourhoods ranges from 250 to 500 units (see appendix 2). This translates to 75 (250 X 0.3 p.p.u.) and 150 (500 X 0.3 p.p.u.).

(6) The majority of neighbourhoods in the study area with approved plans have a design population of approximately 4,500 persons.

Accordingly, it is recommended that the persons per unit (p.p.u.) for:

- low density housing (singles, semis, and attached units) be changed from 3.8 to 3.5;
- low density apartments be changed from 3.0 to 2.5; and,
- medium density apartments be changed from 2.4 to 2.1.

SECTION 3 - UNITS PER HECTARE

CHARACTERISTICS OF UNITS PER HECTARE

In an effort to evaluate the existing unit density (units per hectare) guidelines, a review was carried out to determine the land use allocation in subdivision and registered plans in a number of neighbourhoods, (see appendix 4).

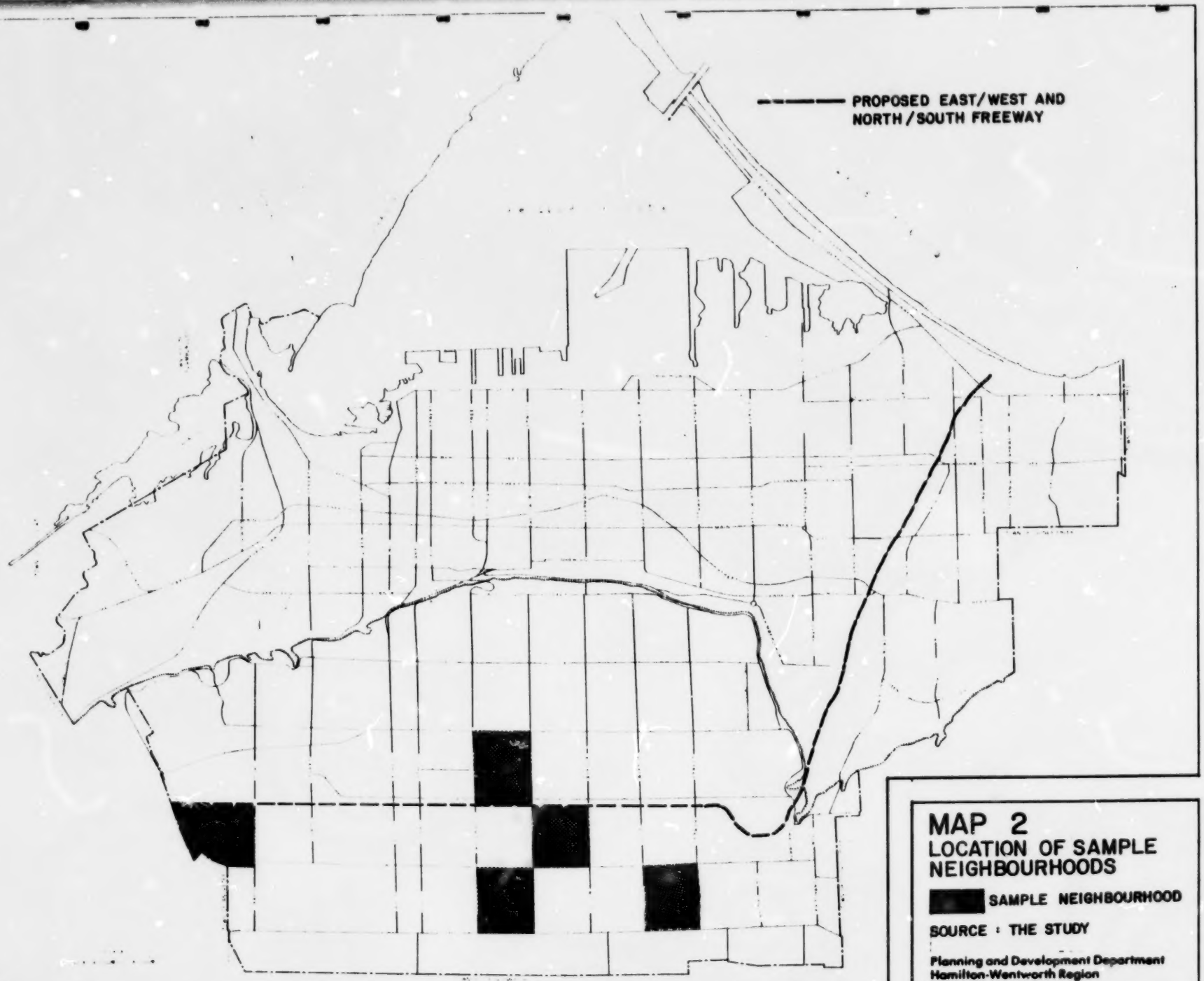
To carry out this task, five neighbourhoods were chosen which are currently in the developing stages. These neighbourhoods which vary in size and location are:

- Gurnett - West Mountain;
- Templemead - East Mountain;
- Bruleville - Centre Mountain North of the Proposed E.W. Freeway;
- Barnstown - South Mountain; and,
- Rushdale - Centre Mountain South of the Proposed E.W. Freeway (See map 2).

These neighbourhoods were selected on the basis that they:

- are representative of other neighbourhoods in the area, in terms of housing composition;
- have an approved Neighbourhood Plan;
- are developing; and,
- have approved subdivision and registered plans for most or the entire neighbourhood.

Table 3 outlines the units per hectare for each housing category by neighbourhood. It is evident that the average unit densities which are achieved in subdivision and registered plans in the sample neighbourhoods are practically the same as the neighbourhood design guidelines. This indicates that the existing unit density design guidelines, used in the preparation of neighbourhood plans, continue to be relevant.



MAP 2
LOCATION OF SAMPLE NEIGHBOURHOODS

SAMPLE NEIGHBOURHOOD

SOURCE : THE STUDY

Planning and Development Department
Hamilton-Wentworth Region

TABLE 3

EXISTING AND OBSERVED UNITS PER HECTARE DESIGN GUIDELINES

NEIGHBOUR-HOOD	LOW DENSITY CATEGORY		LOW DENSITY APARTMENT CATEGORY	MEDIUM DENSITY APARTMENT CATEGORY
	Singles & Semis	Attached	Low Density Apartment	Medium Density Apartment
Gurnett	18.5	30.1	58.3	88.9
Templemead	21.9	34.1	59.0	102.0
Bruleville	14.3	29.6	-	115.9
Barnstown	18.5	29.6	-	99.0
Rushdale	18.0	27.6	-	-
Observed Average	18.2	30.2	58.6	101.4
Existing Design Guidelines	18.0	30.0	60.0	100.0

Source: Hamilton-Wentworth Planning and Development Department

In conclusion, no changes are warranted to the existing unit density guidelines used when preparing neighbourhood plans.

Accordingly, it is recommended that the units per hectare (u.p.ha.) for:

- low density housing (singles and semis) remain unchanged at 18.0;
- low density housing (attached) remain unchanged at 30.0;
- low density apartment remain unchanged at 60.0; and,
- medium density apartments remain unchanged at 100.0.

SECTION 4 - PERSONS PER HECTARE

CHARACTERISTICS OF PERSONS PER HECTARE

In reviewing the population density characteristics of the study area, a comparison was carried out between the achieved density in subdivisions and registered plans and the existing design guidelines used in the preparation of neighbourhood plans. This comparison is similar to the unit density review in Section 3 and utilizes the same five sample neighbourhoods.

In essence, the comparison reveals that there is a difference between the existing persons per hectare design guidelines and the observed guidelines in subdivision and registered plans. In fact, the average population density from the five sample neighbourhoods for all housing categories is approximately 65 persons per hectare lower than the existing guidelines. In addition, it is also evident that the population density for all housing categories in each sample neighbourhood is lower than the existing design guidelines. The only exception to this trend is in the attached housing category in Templemead and Bruleville and the medium density apartment category in Bruleville, where higher population densities are recorded, (See Table 4).

TABLE 4 EXISTING AND OBSERVED PERSONS PER HECTARE (P.P.ha) DESIGN GUIDELINES

NEIGHBOUR-HOOD	LOW DENSITY HOUSING CATEGORY		LOW DENSITY APARTMENT CATEGORY	MEDIUM DENSITY APARTMENT CATEGORY
	Singles & Semis	Attached	Low Density Apartment	Medium Density Apartment
Gurnett	65.0	106.3	146.3	179.1
Templemead	76.6	118.6	148.3	214.9
Bruleville	50.4	118.1	-	243.6
Barnstown	64.5	103.8	-	208.3
Rushdale	64.2	96.3	-	-
Average	64.1	108.6	147.3	211.4
Existing Design Guidelines	68.1	112.7	177.9	237.2

Source: Hamilton-Wentworth Planning and Development Department

This phenomenon is, in part, attributed to the fact that the population in a given hectare is a function of the total number of units multiplied by the number of persons per unit:

POPULATION DENSITY (Persons per Hectare) = UNIT DENSITY (Units per Hectare) X PERSONS/UNIT (Persons per Unit)

Since Section 2 and 3 have indicated that:

- the actual persons per unit has declined in recent years; and,
- the unit density (units per hectare) has remained unchanged,

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then it would be logical to expect that the persons per hectare would experience a decline. This is verified in Table 6 where a decline in the average persons per hectare is recorded for the five sample neighbourhoods surveyed.

Further, when only the developed and committed portions of these five neighbourhoods are examined, again a lower population density is observed in these neighbourhoods, (See Table 5).

TABLE 5 CHARACTERISTICS OF EXISTING AND COMMITTED DEVELOPMENT IN SAMPLE NEIGHBOURHOODS

NEIGHBOUR-HOOD	LOW DENSITY HOUSING CATEGORY						MEDIUM DENSITY APARTMENT		
	SINGLE & SEMIS			ATTACHED					
	Pop.	Ar. (ha)	Dens. /ha	Pop.	Ar. (ha)	Dens. /ha	Pop.	Ar. (ha)	Dens. /ha
Gurnett	3,696	56.5	65.4	579	5.2	111.3	677	5.1	132.7
Templemead	2,922	45.8	63.8	361	3.2	112.8	—	—	—
Bruleville	2,587	45.9	56.4	168	1.3	129.2	862	3.2	269.4
Barnstown	2,216	33.1	66.9	479	4.7	101.9	770	3.5	220.0
Rushdale	2,056	32.1	64.0	1,151	11.5	100.1	—	—	—
Existing Design Guidelines	—	—	68.1	—	—	112.7	—	—	237.2

Source: 1981 - Land Use Characteristics - Hamilton-Wentworth Planning and Development Department

Note: Low Density Apartment Category is not included in Table 5 since data is not available.

The differences between the current design guideline persons per hectare and the average observed for low density housing, low density apartment, and medium density apartment are 8.1, 30.6, and 25.8 p.p.ha respectively, (See Table 6). When these differences are related to the median range of the areas allocated in approved neighbourhood plans for each category, an estimated population overallocation from:

- 405 to 810 persons in low density housing(7);
- 61 to 183 persons in low density apartment(8); and,
- 103 to 206 persons in medium density apartment(9)

is observed.

In total, these differences translate to a possible population overallocation from 569 to 1,199 persons in a neighbourhood. Expressed in another way, this overallocation represents a contingency of 12.6% to 26.7% to the total design population in a neighbourhood plan.(10) While a contingency in the total design population for a neighbourhood may be required, a contingency level this high should not be considered to be reasonable.

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(7) The amount of area (hectares) allocated for low density housing in most neighbourhoods (single, semis, and attached) ranges from 50 to 100 hectares (See Appendix 5). This translates to 405 (50 X 8.1 p.p.ha.) and 810 (100 X 8.1 p.p.ha.).

(8) The amount of area (hectares) allocated for low density apartment in most neighbourhoods ranges from 2.0 to 6.0 hectares (See Appendix 5). This translates to 61 (2.0 X 30.6 p.p.ha.) and 183 (6.0 X 30.6 p.p.ha.)

(9) The amount of area (hectares) allocated for medium density apartment in most neighbourhoods ranges from 4.0 to 8.0 hectares (See Appendix 5). This translates to 103 (4.0 X 25.8 p.p.ha.) and 206 (8.0 X 25.8 p.p.ha.).

(10) The majority of neighbourhoods in the study area with approved plans have a design population of approximately 4,500 persons.

TABLE 6 DIFFERENCE BETWEEN DESIGN AND OBSERVED PERSON PER HECTARE GUIDELINES (P.P.ha)

TYPE OF UNIT	EXISTING DESIGN GUIDELINES	OBSERVED AVERAGE	DIFFERENCE BETWEEN DESIGN AND OBSERVED
Singles & Semis	68.1	64.1	(-) 4.0
Attached	112.7	108.6	(-) 4.1
Low Density Apartment	177.9	147.3	(-) 30.6
Medium Density Apartment	237.2	211.4	(-) 25.8
TOTAL	595.9	531.4	(-) 64.5

Source: Hamilton-Wentworth Planning and Development Department - Approved Neighbourhood Plans

In conclusion, based on these findings, a number of revisions to the existing persons per hectare (p.p.ha.) are necessary.

Accordingly, it is recommended that the persons per hectare (p.p.ha.) for:

- low density housing (singles and semis) be changed from 68.1 to 63.0;
- attached housing be changed from 112.7 to 105.0;
- low density apartment be changed from 177.9 to 150.0; and,
- medium density apartment be changed from 237.2 to 210.0.

APPENDICES

APPENDIX I

Persons Per Unit in 1974 and 1980 for Neighbourhoods in the Study Area

NEIGHBOURHOOD REFERENCE NO.	103		134		46		57		45		20		133		49		50		18		130		110		19		23		111		98		96		112	
YEAR	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80
Single Family	3.8	3.7	3.7	3.3	3.3	3.6	3.5	3.3	3.6	3.5	4.1	3.5	3.6	3.3	4.0	3.9	3.7	3.8	3.8	3.2	4.0	3.5	3.3	2.4	3.5	3.0	3.7	3.4	3.3	2.9	3.7	3.1	4.1	3.7	3.0	3.5
Semi-Detached	4.2	3.8			2.9	3.6		3.3							3.7	3.7	3.9	3.8	4.6	3.5	4.4	4.1	4.0	4.0									4.4	3.7	7.0	3.8
Attached	3.9	3.4			3.8	3.3									4.0	3.8	2.9	3.5	3.7	3.7	4.4	4.0							3.3	3.1						3.0
Low Density Apartment	2.0	2.0					3.5	4.0			3.5	3.0	2.2	1.8	2.9	1.8	2.0		2.0	1.5	2.8	2.2	3.5	2.0	3.2	2.3			2.6	1.7	3.8	1.6	3.0	1.7	3.2	1.0
Medium Density Apartment	2.2	2.0			2.2	2.1													2.7	2.2	2.4	2.0							1.8		1.8		1.9	1.7		

NEIGHBOURHOOD REFERENCE NO.	44		114		102		17		116		53		121		84		123		43		15		128		61		11		110		129		14		122	
YEAR	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80
Single Family	3.6	3.8	3.6	3.7	4.3	3.7	3.9	3.4	4.1	3.7	4.0	3.8	3.9	3.6	3.0	2.0	3.6	3.8	3.7	3.2	3.9	3.5	3.5	2.9	3.9	2.9	4.0	4.1	3.7	3.8	3.6	3.4	3.0	1.0	3.9	3.5
Semi-Detached	4.0	4.0	4.2	3.8					2.7	3.5		3.6					4.0	4.0		3.8						3.6	4.1	4.0	3.8	4.1	3.0	3.9				
Attached	3.8	3.4	3.6	3.4					3.8	3.2		3.6		3.8			3.0	3.4								3.8	4.1	3.6		3.5		3.3				
Low Density Apartment	4.5	2.0	5.0	4.0			3.2	2.9	3.0	1.0	4.0	1.5	2.5	2.0			4.5	2.0	4.0	6.0	4.0	6.0	4.0	1.7	4.5		3.0	4.0	2.9	1.1	2.7	2.7			3.9	3.3
Medium Density Apartment			2.7	2.3					3.1	3.0													1.8	1.7		1.5	1.7	1.5							2.5	2.2

NEIGHBOURHOOD REFERENCE NO.	13		137		86		101		83		22		7		56		82		67		97		131		91		5		132		113		47		32	
YEAR	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80
Single Family	3.2	2.8	3.8	3.5	3.3	3.3	3.4	3.0	3.8	3.4	3.0	2.7	3.5	3.1	3.9	3.5	3.6	2.9	3.8	3.3	3.9	3.8	2.3	3.2			4.4	3.3	3.9	3.8	3.7	3.6	3.8	3.9	3.7	3.3
Semi-Detached			3.5	3.7							2.5	2.0			4.1	3.1			4.6	3.6	3.8	3.5							3.7	3.7	3.3	3.4				
Attached			3.7	3.4											4.4	3.4					4.2	3.4	3.5						3.9	3.6	3.9	3.3	3.3		3.7	3.8
Low Density Apartment	3.1	1.8	3.1	3.2	5.8		2.3	2.3	3.8	2.4	2.8	1.7	3.1	1.7	2.3	1.7			3.6	1.8			7.0	3.0			3.3	2.7	3.0	4.0	3.3	5.0	3.5	2.0	3.3	2.8
Medium Density Apartment	2.4										1.8	1.3	3.9		2.0	1.7			2.2	2.0									3.1	2.9	2.8	2.3			2.3	1.9

NEIGHBOURHOOD REFERENCE NO.	119		6		68		65		16		33		8		24		42		55		65		115													
YEAR	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80	'74	'80												
Single Family	3.4	3.0	3.9	3.3	3.1	2.8	3.7	3.1	3.9	3.4	4.5	3.7	3.5	2.9	2.5	2.0	3.2	2.9	3.9	3.5	3.9	3.7	3.7	3.5												
Semi-Detached									4.2	3.7							6.0	2.8	3.6	3.2	4.2	3.9	4.0	4.0												
Attached									4.4	3.7									3.9	3.8	4.0	3.4	4.1	3.5												
Low Density Apartment	5.3	1.7	3.3	1.3	2.1	1.6	3.2	1.7			2.3	1.5	3.3	2.3			3.5	1.6	3.5	3.0	3.6	2.4	4.0														
Medium Density Apartment					1.9	1.6	1.9		2.1	1.8							1.7		2.0	1.8	1.9	1.7	2.3	2.2												

NEIGHBOURHOOD	SINGLE & SEMI	ATTACHED	SUB TOTAL	LOW DENS. APT.	MED. DENS. APT.	TOTAL
ALBION FALLS	106		106			106
BARNSTOWN	1091	199	1290	609		1899
BROUGHTON EAST	346	220	566			566
BERRISFIELD	843	214	1057	626		1683
BURKHOLME	1082	94	1176	12	256	1444
BUTLER	695	227	922	436	65	1423
BRULEVILLE	896	303	1199		956	2155
BROUGHTON WEST	677	153	830			830
CRERAR	789	116	905	176	192	1273
CHAPPEL EAST	505	180	685	88		773
CHAPPEL WEST	123	148	271			271
ELEANOR	1106	143	1249	77	266	1592
FESSENDEN	608	321	929	100	468	1497
FALKIRK WEST (1)	521	360	881			881
FALKIRK EAST (1)	1035	732	1767			1767
GURNETT	1156	418	1574	219	282	2075
GILKSON	707	369	1076	190		1266
GILBERT	643	353	996	221		1217
GOURLEY	1086	423	1509			1509
GERSHOME	773	233	1006	319	256	1581
GREENFORD	508	28	536	216	910	1662
GREENINGDON	747	176	923	309	451	1683
KENTLEY	541	473	1014	175	758	1947
KERNINGHAM	158	46	204	130		334
LAWFIELD	865	75	940	300	390	1630
LISGAR	922	98	1020	204	873	2097
MOUNTVIEW	652	219	871		640	1511
QUINNDALE	463	567	1030	133	492	1655
ROLSTON	847	507	1354	92	400	1846
RANDALL	606	245	851	54		905
RUSHDALE	550	303	853			853
RIVERDALE EAST	817	258	1075	155	521	1751
RIVERDALE WEST	194	253	447		2392	2839
RED HILL	755	252	1007	214	618	1839
TEMPLEMEAD	809	223	1032	314	124	1470
TRENHOLME	257	277	534			534
THORNER	474	188	662	208	336	1206
VINCENT	1051	716	1767	32	950	2749
YEOVILLE	365	71	436	7		443
MEDIAN RANGE			600 - 1100	100 - 250	250 - 500	

(1) PORTION OF UNITS ALLOCATED ARE BASED ON ASSUMED VALUES

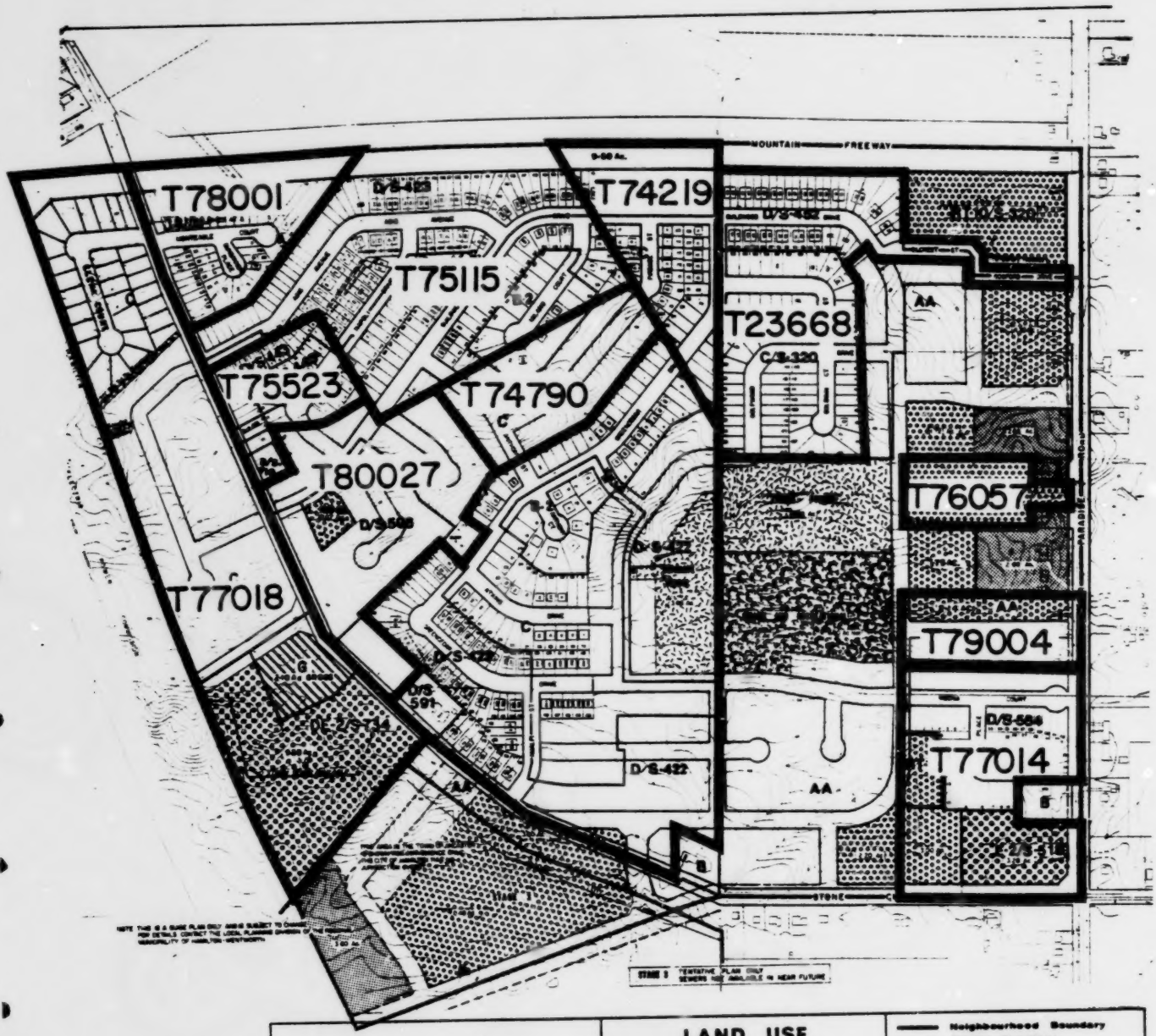
APPENDIX 2

TOTAL NUMBER OF UNITS PLANNED AS PER APPROVED NEIGHBOURHOOD PLANS

NEIGHBOURHOOD	EXISTING POPULATION	FUTURE POPULATION	DESIGN POPULATION
ALBION FALLS	280	123	403
ALLISON	486	2940	3426
BALFOUR	2812		2812
BARNSTOWN	75	6289	6364
BERRISFIELD	3967	1553	5520
BONNINGTON	1896		1896
BROUGHTON EAST	14	2137	2151
BROUGHTON WEST	151	3003	3154
BRULEVILLE	3027	3555	6582
BUCHANAN	3393		3393
BURKHOLME	3007	1652	4659
BUTLER	106	4863	4969
CARPENTER	122	4873	4995
CENTREMOUNT	3092		3092
CHAPPEL EAST	35	2834	2869
CHAPPEL WEST	11	974	985
CORMAN	4124		4124
CRERAR	110	4266	4376
EASTMOUNT	5109		5109
ELEANOR	676	4934	5610
FALKIRK EAST	1110	4992	6102
FALKIRK WEST	72	3560	3632
FESSENDEN	3311	1221	4532
GERSHOME	825	4570	5395
GILBERT	2779	1662	4441
GILKSON	2977	1684	4661
GOURLEY	2536	3118	5654
GREENFORD	2031	2837	4868
GREENINGDON	3860	1604	5464
GURNETT	835	6392	7227
HAMPTON HEIGHTS	3963		3963
HILL PARK	3804		3804
HUNTINGTON	6102		6102
INCH PARK	4568		4568
JEROME	188	3025	3213
KENNEDY EAST	600	2000	2600
KENNEDY WEST	26	2241	2267
KENTLEY	4154	1578	5732
KERNINGHAN	162	989	1151
LAWFIELD	3444	1965	5409
LISGAR	2535	4314	6849
MACASSA	3229		3229
MEWBURN	184	4109	4293
MOHAWK	312		312
MOUNTVIEW	4432	413	4845
QUINNDALE	2800	2695	5495
RALEIGH	5495		5495
RANDALL	714	2681	3395
REDHILL	4166	1786	5952
RIVERDALE EAST	3063	2600	5663
RIVERDALE WEST	6320	574	6894
ROLSTON	5121	1158	6279
RUSHDALE	40	3201	3241
RYCKMAN'S	144	5526	5670
SHELDON	216	4784	5000
SHERWOOD	3170		3170
SOUTHAM	1037		1037
SUNNINGHILL	2805		2805
TEMPLEMEAD	1040	4131	5171
THORNER	1507	2267	3774
TRENHOLME	541	1488	2029
UPPER KING'S FOREST			
VINCENT	8357	1033	9390
WESTCLIFFE EAST	3247		3247
WESTCLIFFE WEST	2048		2048
YEOVILLE	1345	270	1615

APPENDIX 3

DESIGN POPULATION PER NEIGHBOURHOOD IN STUDY AREA



EXISTING POPULATION (1969) 86
(1970) 90
(1971) 81
(1972) 65
(1973) 47
(1974) 39
(1975) 35
(1976) 35

APPENDIX 4

SUBDIVISION BOUNDARY

76109 FILE NUMBER

LAND USE

RESIDENTIAL
- single & double
- attached housing
- low density apts.
- medium density apts.
- high density apts.
- commercial & apts.

COMMERCIAL
INDUSTRIAL
CIVIC & INSTITUTIONAL
PARK & RECREATIONAL
OPEN SPACE
UTILITIES

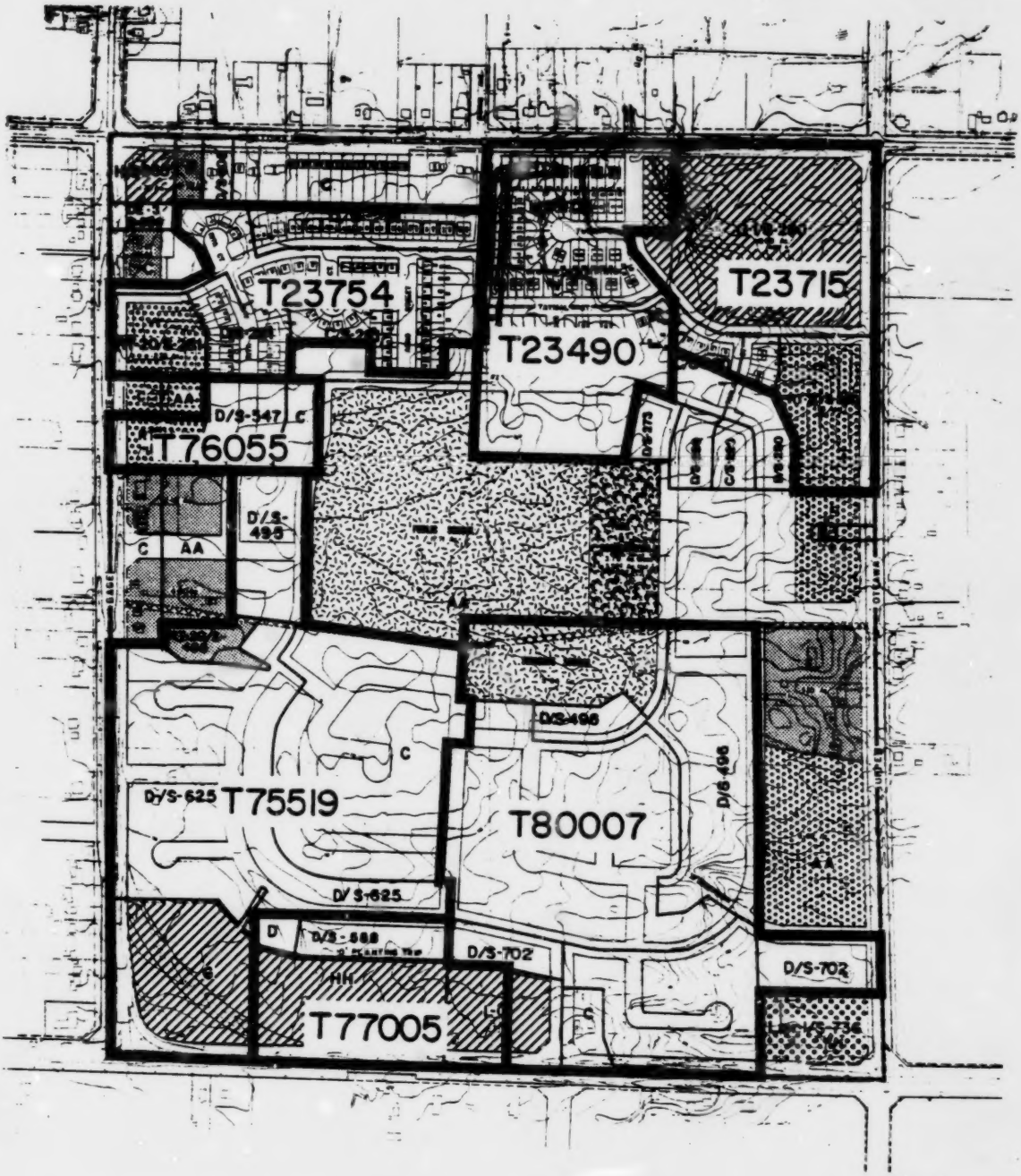
Neighbourhood Boundary
Zoning Boundary
Staging of Development Boundary

Approvals
Planning Bd. [illegible] Council [illegible]

Revisions
OCT 29,1970
JUNE 12,1980

CITY OF HAMILTON
PLANNING DEPARTMENT

GURNETT
APPROVED PLAN



APPENDIX 4

SUBDIVISION BOUNDARY

73345 FILE NUMBER

LAND USE

RESIDENTIAL
- single & double
- attached housing
- low density apts.
- medium density apts.

COMMERCIAL

CIVIC & INSTITUTIONAL

PARK & RECREATIONAL

UTILITIES

Neighbourhood Boundary
Zoning Boundary
Staging of Development Boundary

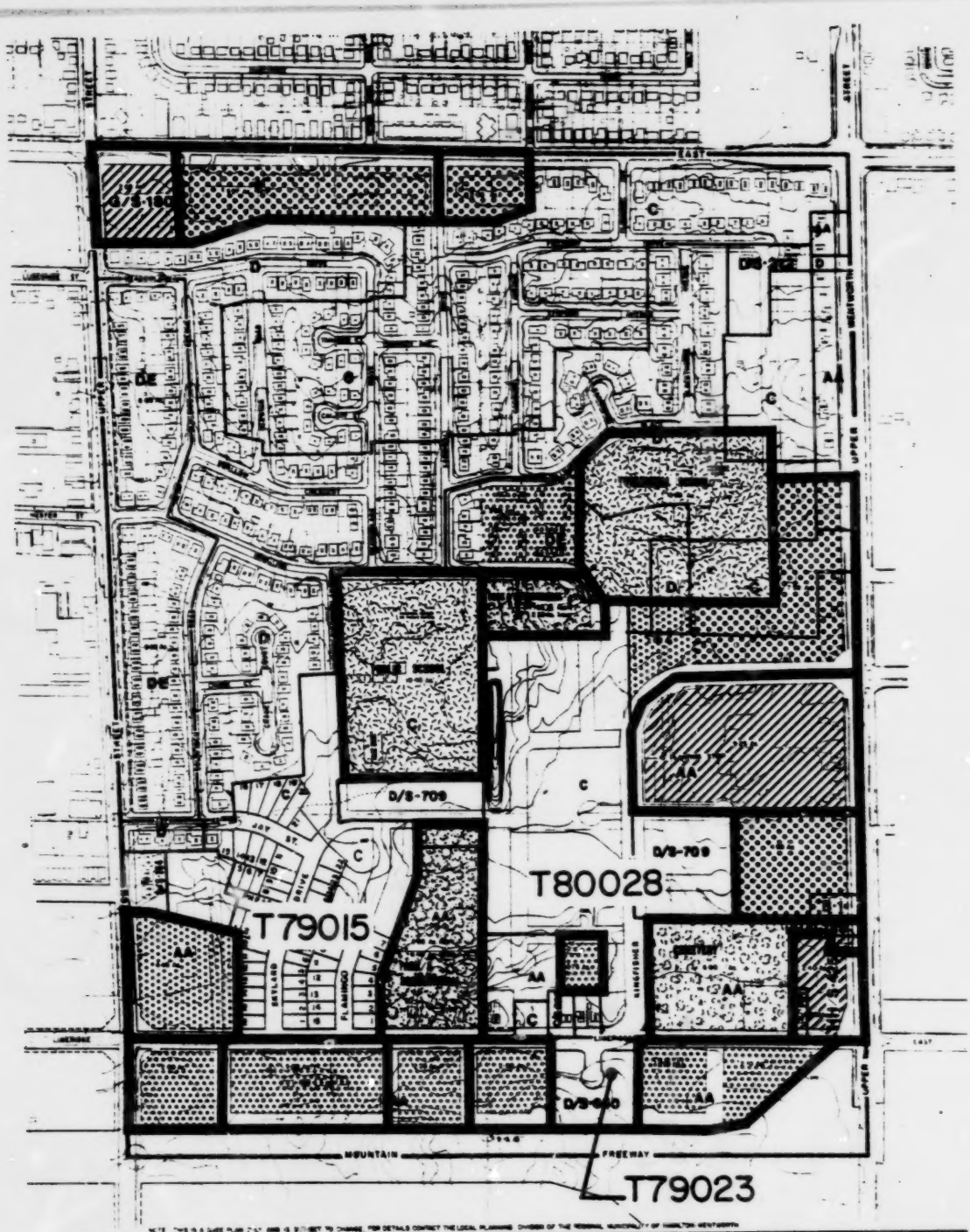
Approvals
Planning Bd. Council

Revisions

CITY OF HAMILTON
PLANNING DEPARTMENT

TEMPLEMEAD

APPROVED PLAN



NOTE: THIS IS A GUIDE PLAN ONLY AND IS SUBJECT TO CHANGE. FOR DETAILS CONTACT THE LOCAL PLANNING DIVISION OF THE REGIONAL MUNICIPALITY OF HAMILTON-WENTWORTH

APPENDIX 4

SUBDIVISION BOUNDARY

77445 FILE NUMBER

LAND USE

RESIDENTIAL
- single & double
- attached housing
- low density apts.
- medium density apts.
- high density apts.
- commercial & apts.

COMMERCIAL

INDUSTRIAL

CIVIC & INSTITUTIONAL

PARK & RECREATIONAL

OPEN SPACE

UTILITIES

Neighbourhood Boundary
Zoning Boundary
Staging of Development Boundary

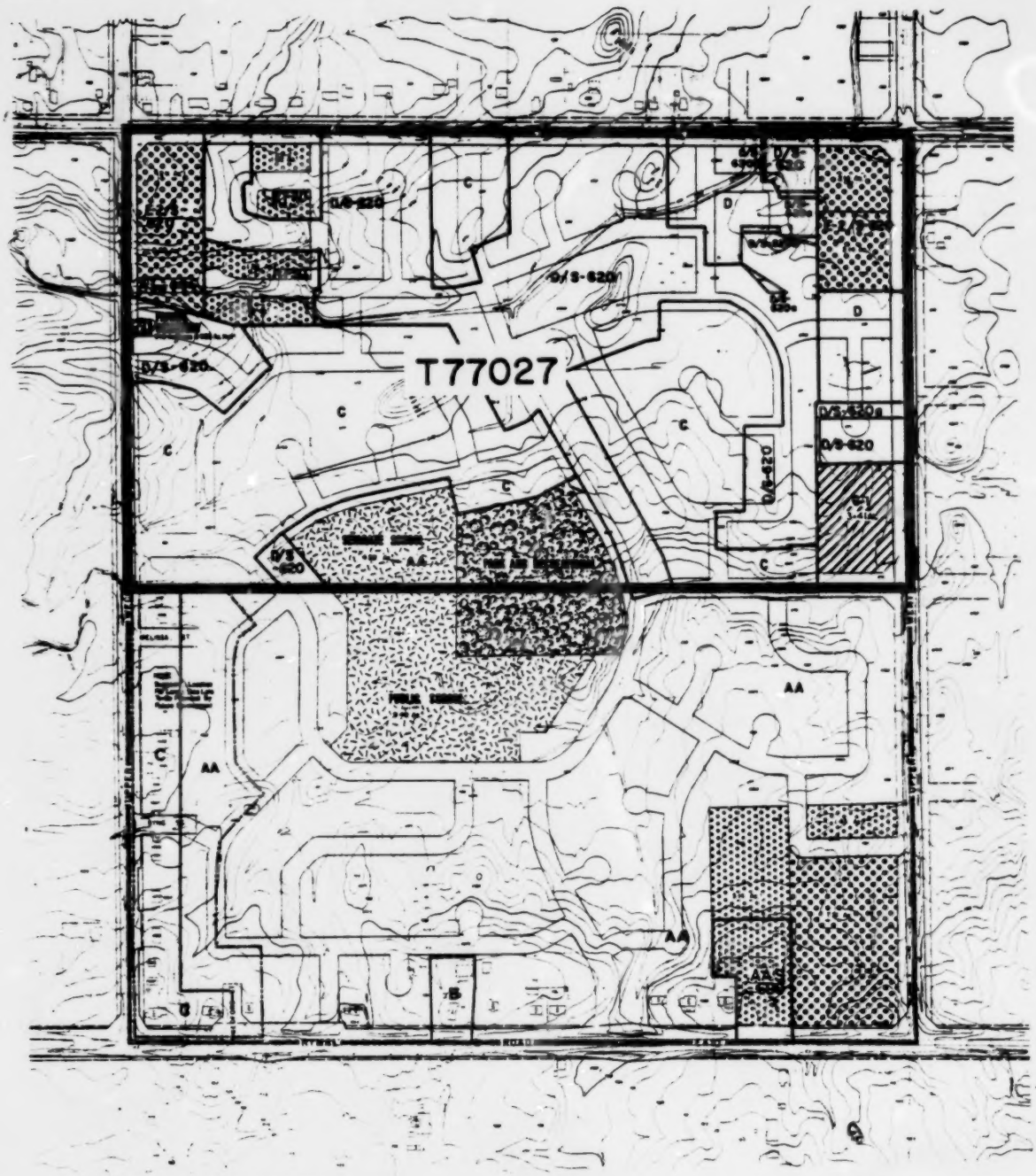
Approved
Planning Comm. March 1/78 Council Mar.28/78
Revisions
June 17/80

CITY OF HAMILTON
PLANNING DEPARTMENT

BRULEVILLE
APPROVED PLAN

NORTH

SCALE IN FEET



NOTE THIS IS A GUIDE PLAN ONLY AND IS SUBJECT TO CHANGE.
FOR DETAILS CONTACT THE LOCAL PLANNING DIVISION OF THE REGIONAL MUNICIPALITY OF HAMILTON-WENTWORTH

EXISTING POPULATION (1969) 93
(1970) 98
(1971) 88
(1972) 87
(1973) 90
(1974) 92

APPENDIX 4

SUBDIVISION BOUNDARY

77012 FILE NUMBER

LAND USE

RESIDENTIAL
- single & double
- attached housing
- low density apts.
- medium density apts.
- high density apts.
- commercial & apts.

COMMERCIAL

INDUSTRIAL

CIVIC & INSTITUTIONAL

PARK & RECREATIONAL

OPEN SPACE

UTILITIES

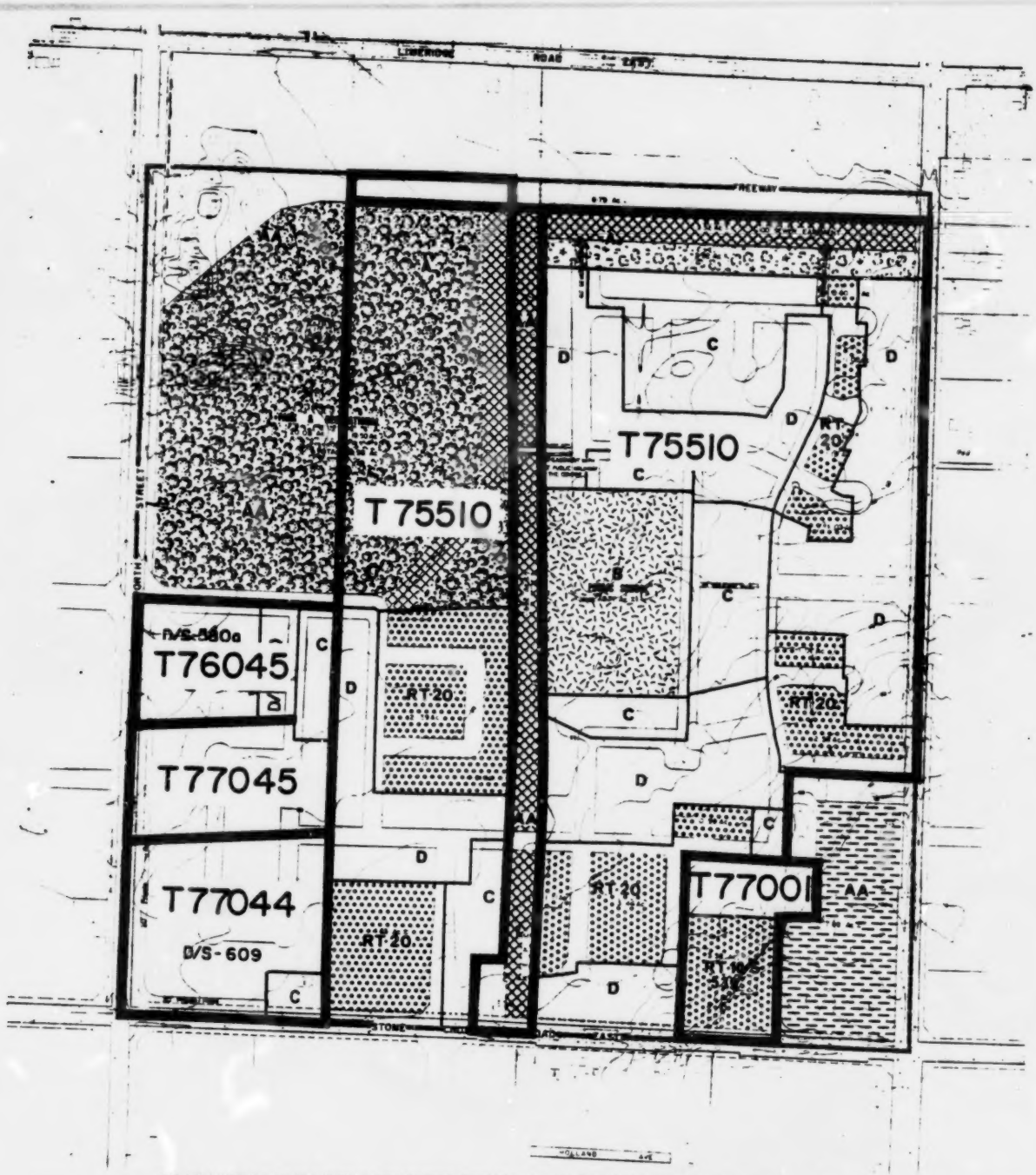
Neighbourhood Boundary
Zoning Boundary
Staging of Development Boundary

Approvals
Planning Bd. mtg. d.m Council mtg d.m

Revisions

CITY OF HAMILTON
PLANNING DEPARTMENT

BARNSTOWN
APPROVED PLAN



EXISTING POPULATION

APPENDIX 4

SUBDIVISION BOUNDARY

77888 FILE NUMBER

LAND USE

RESIDENTIAL

single & double

attached housing

CIVIC & INSTITUTIONAL

PARK & RECREATIONAL

OPEN SPACE

UTILITIES

MULTICENTRE

Neighbourhood Boundary

Zoning Boundary

Staging of Development Boundary

Approvals

Planning Bd. Council

Revisions

OCTOBER 2, 1979

CITY OF HAMILTON
PLANNING DEPARTMENT

RUSHDALE

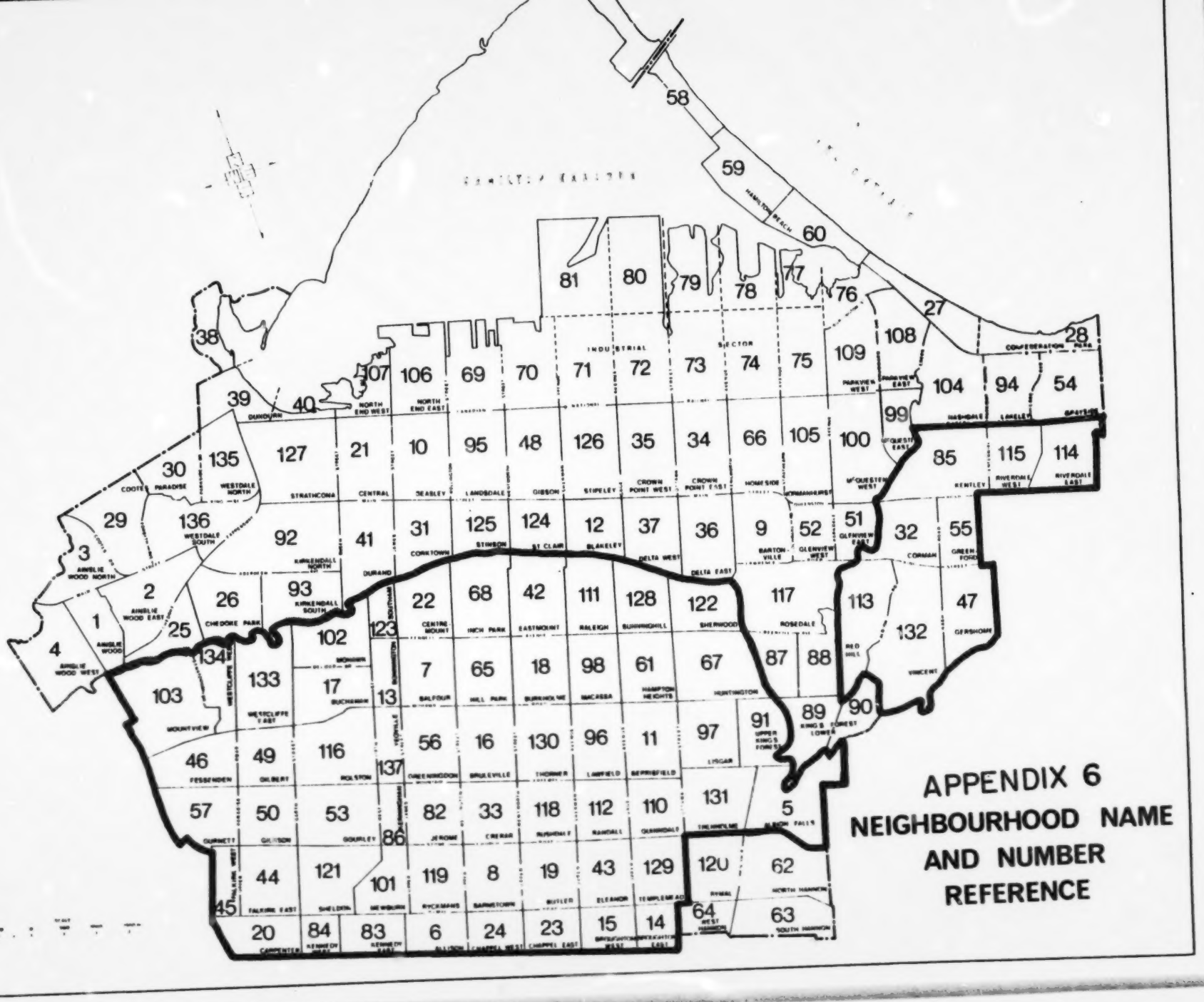
APPROVED PLAN

NEIGHBOURHOOD	SINGLE & SEMI	ATTACHED	SUB TOTAL	LOW DENS APT.	MED. DENS APT.	TOTAL
ALBION FALLS	10.92		10.92			10.92
BARNSTOWN	62.28	7.34	69.62		6.39	76.01
BROUGHTON EAST	19.32	7.42	26.74			26.74
BERRISFIELD	58.31	9.38	67.69		5.39	73.08
BURKHOLME	59.94	3.72	63.66	0.22	2.94	66.82
BUTLER	38.09	7.65	45.74	7.35	1.00	54.09
BRULEVILLE	61.60	11.06	72.66		8.09	80.75
BROUGHTON WEST	37.81	6.17	43.98			43.98
CRERAR	45.12	5.08	50.20	2.10	1.93	54.23
CHAPPEL EAST	28.26	6.07	34.33	1.49		35.82
CHAPPEL WEST	8.00	5.01	13.01			13.01
ELEANOR	61.04	5.02	66.06	1.30	2.69	70.05
FESSENDEN	41.55	16.80	58.35	2.10	5.16	65.61
FALKIRK WEST (1)	30.00	12.14	42.14			42.14
FALKIRK EAST (1)	63.97	24.60	88.57			88.57
GURNETT	70.10	10.74	80.84	3.69	5.09	89.62
GILKSON	43.87	13.14	57.01	3.19		60.20
GILBERT	44.14	10.77	54.91	4.04		58.95
GOURLEY	74.17	16.59	90.76			90.76
GERSHOME	48.84	7.58	56.42	5.41	2.59	64.42
GREENFORD	32.84	1.00	33.84	2.79	7.82	44.45
GREENINGDON	53.77	5.29	59.06	5.37	3.81	68.24
KENTLEY	40.79	13.55	54.34	2.80	5.88	63.02
KERNINGHAM	11.64	1.60	13.24	2.19		15.43
LAWFIELD	61.59	2.45	64.04	5.04	3.32	72.40
LISGAR	63.16	3.19	66.35	3.60	8.83	78.78
MOUNTVIEW	57.54	7.32	64.86	2.24	5.56	72.66
QUINNDALE	28.29	19.62	47.91	1.50	5.05	54.46
ROLSTON	66.19	16.89	83.08	1.00	3.99	88.07
RANDALL	35.10	8.48	43.58	1.00		44.58
RUSHDALE	32.61	11.53	44.14			44.14
RIVERDALE EAST	45.81	7.79	53.60	2.66	4.93	61.19
RIVERDALE WEST	15.18		15.18	9.36	17.16	41.70
RED HILL	56.34	7.76	64.10	4.39	5.52	74.01
TEMPLEMEAD	48.00	7.55	55.55	5.29	1.25	62.09
TRENHOLME	16.94	11.43	28.37			28.37
THORNER	30.12	6.36	36.48	3.10	2.52	42.10
VINCENT	76.68	22.73	99.41	0.40	9.37	109.18
YEOVILLE	17.18	1.62	18.80	0.10		18.90
MEDIAN RANGE			50-100	2-6	4-8	

(1) PORTION OF AREAS ALLOCATED ARE BASED ON ASSUMED VALUES

APPENDIX 5

TOTAL AREA ALLOCATED AS PER APPROVED NEIGHBOURHOOD PLANS (HECTARES)


APPENDIX 6
NEIGHBOURHOOD NAME
AND NUMBER
REFERENCE